

Appl. No. 10/799,065
Examiner: MAI, ANH T, Art Unit 2832
In response to the Office Action dated October 28, 2005

Date: January 25, 2006
Attorney Docket No. 10113891

REMARKS

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority and receipt of the certified copy of the priority document. Responsive to the Office Action mailed on October 28, 2005 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

Present Status of Application

Claims 1-16 are pending. Claims 2-3, 6-7, and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al (US 3,947,749, hereinafter "Kimura") in view of Watanabe (JP 08236362A, hereinafter "Watanabe"). Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Watanabe, and further in view of Lin et al (US 6,717,372, hereinafter "Lin").

In this paper, claims 1-3, 6-7, 10, and 14-15 are amended. Support for the amendments can be found throughout the specification, as described in further detail below.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

Rejections Under 35 U.S.C. 112

Claims 2-3, 6-7, and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner states that it is not clear how a third winding is disposed between the first and second bobbins, and furthermore that such a feature is not supported by the specification or drawings. Applicant respectfully traverses the rejections for the reasons as follow.

Appl. No. 10/799,065
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MPEP 2173.02 states that the essential inquiry pertaining to the definiteness requirement is:

... whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent ...

Claims 2, 6, and 14 recite a third winding disposed between the first bobbin and the second bobbin. Applicant submits that the third winding recited in claims 2, 6, and 14 finds support in the fourth winding 82 shown in Fig. 10 and described in the corresponding text of the application. Additionally, claims 3, 7, and 15 recite a fourth winding disposed between the first bobbin and the second bobbin. The fourth winding recited in claims 3, 7, and 15 find support in the fifth winding 83 shown in Fig. 10 and described in the corresponding text of the application.

Page 10, lines 24-28 of the specification read:

The second winding 91 and the third winding 92 inductively generate high voltage signals through the first winding 81, the fourth winding 82, and the fifth winding 83 respectively.

Amended claim 2 recites that the plurality of second windings generate high voltage signals induced from the first winding and the third winding. Amended claim 3 recites that the plurality

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Date: January 25, 2006
Attorney Docket No. 10113891

of second windings generate the high voltage signals induced from the first winding, the third winding and the fourth winding. Amended claims 6 and 14 are modified on the same basis as claim 2, and amended claims 7 and 15 are modified on the same basis as claim 3.

It is therefore Applicant's belief that claims 2-3, 6-7 and 14-15 particularly point out and distinctly claimed the subject matter which applicant regards as the invention. Namely, the claims apprise one of ordinary skill in the art of their scope and provide clear warning to others as to what constitutes infringement of the patent. Withdrawal of the rejections under 35 U.S.C. 112, second paragraph, is respectfully requested.

Rejections Under 35 U.S.C. 103(a)

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Watanabe. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Watanabe, and further in view of Lin. To the extent that the grounds of the rejections may be applied to the claims now pending in this application, they are respectfully traversed.

Even when combined, Kimura and Watanabe fail to teach or suggest a transformer for a plurality of lighting tubes, comprising a coupling iron core, a first winding around the coupling iron core, a first bobbin disposed between the first winding and the coupling iron core; a plurality of second windings, independent of each other and respectively winding around the exterior of the first winding, wherein the second windings have the same winding number; and a second bobbin disposed between the first winding and one second winding, and wherein each pair of the plurality of lighting tubes is connected in series and driven by one of the plurality of second windings, as recited in claim 1.

MPEP 2142 reads in part:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined)

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must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In connection with the third criteria, MPEP 2143.03 goes on the state:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Claim 1 is amended to recite that each pair of the plurality of lighting tubes is connected in series and driven by one of the plurality of second windings. This amendment finds support on page 8, lines 6-13 of the specification, which reads:

Fig. 6 shows the effective circuit of the voltage supply circuit for lighting tubes utilizing the transformer in Figs. 5a and 5b. If the second winding 91 is connected in series with lighting tubes R1 and R2, only single current flows through, such that the current flowing through the secondary winding to be output to the lighting tubes is balanced automatically. Thus, a balance circuit is unnecessary.

Fig. 6 of the application illustrates two lighting tubes R1 and R2 connected in series and driven by the second winding 91. The circuit is designed to remove the balance circuit 23 of Fig. 2 or 33 of Fig. 3, while maintaining balanced currents flowing through the two lighting tubes R1 and R2.

Similarly, Fig. 9b of the application shows a circuit design of the invention. Page 10, lines 5-13 of the specification read:

Appl. No. 10/799,065
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Attorney Docket No. 10113891

Fig. 9b shows another effective circuit of the voltage supply circuit for lighting tubes utilizing the transformer of the present invention. The second winding 91 is connected in serial with two lighting tubes R1 and R3, and the third winding 92 is connected in serial with two lighting tubes R2 and R4. Output current from the second winding 91 and the third winding 92 is balanced automatically according to Lenz's Law. Current through the lighting tubes is balanced automatically as currents of the same winding remain the same.

Fig. 9b of the application illustrates four lighting tubes R1 to R4. Each pair of the lighting tubes (R1 and R3, R2 and R4) is connected in series, and respectively driven by the second windings 91 and 92.

Fig. 6 of Kimura illustrates a high voltage generator, or a transformer. However, the Kimura does not teach or suggest a plurality of lighting tubes, each pair of which is connected in series and driven by one of the plurality of second windings, as recited in claim 1.

Fig. 1 of the Watanabe illustrates a transformer 15 with an iron core 33 in it. However, Watanabe also fails to teach a plurality of lighting tubes, each pair of which is connected in series and driven by one of the plurality of second windings, as recited in claim 1.

Thus, even when taken in combination, Kimura and Watanabe fail to teach all the limitations of claim 1. For at least this reason, a *prima facie* case of obviousness cannot be established in connection with this claim. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim, the Examiner's arguments in regard to the dependent claims are considered moot and are not addressed here. Allowance of claims 1-4 is respectfully requested.

Even when combined, Kimura, Watanabe and Lin fail to teach or suggest a voltage supply circuit for a plurality of lighting tubes, comprising a coupling iron core, a first winding around the coupling iron core receiving a first voltage signal, a first bobbin disposed between the first winding and the coupling iron core, a second winding around the exterior of the first winding inductively generating a second voltage signal, a second bobbin disposed between the first

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winding and the second winding, and a plurality of first lighting tubes, connected in series and driven by the second voltage signal, as recited in claim 5.

Amended claim 5 recites that a plurality of first lighting tubes are connected in series and driven by the second voltage signal. Applicant submits that neither Kimura nor Watanabe teach or suggest this limitation.

Lin discloses multiple arrangements of a plurality of lighting tubes and transformers. However, none of the lighting tubes disclosed by Lin are serially connected in a pair-wise manner to be respectively driven by one of the signals output from a transformer. Thus, Lin also fails to teach or suggest a plurality of first lighting tubes, connected in series and driven by the second voltage signal, as recited in claim 5.

It is therefore Applicant's belief that even when taken in combination, the prior art references relied upon by the Examiner do not teach or suggest all the limitations of claim 5. For at least this reason, a *prima facie* case of obviousness cannot be established in connection with this claim. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim 5, the Examiner's arguments in regard to the dependent claims are considered moot and are not addressed here. Allowance of claims 5-9 is respectfully requested.

Even when combined, Kimura, Watanabe and Lin fail to teach or suggest a voltage supply circuit, appropriate for a plurality of lighting tubes, comprising a coupling iron core, a first winding around the coupling iron core receiving a first voltage signal, a plurality of second windings, independent of each other, respectively winding around the exterior of the first winding, and inductively generating a plurality of second voltage signals, wherein the second windings have the same winding number, a second bobbin disposed between the first winding and the second winding, and a plurality of first lighting tubes, each pair of which is connected in series and driven by one of the second voltage signals, as recited in claim 10.

Appl. No. 10/799,065
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For the same reasons discussed in connection with claim 5, it is Applicant's belief that the cited references fail to teach the limitation of a plurality of first lighting tubes, each pair of which is connected in series and driven by one of the second voltage signals, as recited in claim 10. It is therefore Applicant's belief that even when taken in combination, the prior art references relied upon by the Examiner do not teach or suggest all the limitations of claim 10. For at least this reason, a *prima facie* case of obviousness cannot be established in connection with this claim. Furthermore, as it is Applicant's belief that a *prima facie* case of obviousness is not established for claim 10, the Examiner's arguments in regard to the dependent claims are considered moot and are not addressed here. Allowance of claims 10-16 is respectfully requested.

Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted,



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